

## SYLLABUS

### 1. Information regarding the programme

1.1 Higher education institution	<b>Babeş-Bolyai University of Cluj-Napoca</b>
1.2 Faculty	<b>Faculty of Mathematics and Informatics</b>
1.3 Department	<b>Department of Informatics</b>
1.4 Field of study	<b>Computer Science and Information Technology</b>
1.5 Study cycle	<b>Bachelor</b>
1.6 Study programme / Qualification	<b>Information Engineering</b>

### 2. Information regarding the discipline

2.1 Name of the discipline (en) (ro)	<b>Introduction in innovation management/ Introducere in managementul inovatiei</b>						
2.2 Course coordinator	<b>Lector univ. dr. Alexandru Roja</b>						
2.3 Seminar coordinator	<b>Lector univ. dr. Alexandru Roja</b>						
2.4. Year of study	<b>3</b>	2.5 Semester	<b>6</b>	2.6. Type of evaluation	<b>C</b>	2.7 Type of discipline	<b>Facultative DC</b>
2.8 Code of the discipline							

### 3. Total estimated time (hours/semester of didactic activities)

3.1 Hours per week	2	Of which: 3.2 course	2	3.3 seminar/laboratory	0
3.4 Total hours in the curriculum	28	Of which: 3.5 course	28	3.6 seminar/laboratory	0
Time allotment:					hours
Learning using manual, course support, bibliography, course notes					20
Additional documentation (in libraries, on electronic platforms, field documentation)					10
Preparation for seminars/labs, homework, papers, portfolios and essays					10
Tutorship					
Evaluations					7
Other activities: .....					
3.7 Total individual study hours			47		
3.8 Total hours per semester			75		
3.9 Number of ECTS credits			3		

### 4. Prerequisites (if necessary)

4.1. curriculum	•
4.2. competencies	<ul style="list-style-type: none"> <li>• Knowledge in the field of Information technology.</li> <li>• Knowledge in the field of management and entrepreneurship.</li> </ul>

## 5. Conditions (if necessary)

5.1. for the course	<ul style="list-style-type: none"> <li>Classroom with video-projector and internet connection.</li> </ul>
5.2. for the seminar /lab activities	<ul style="list-style-type: none"> <li>Room with video-projector, collaborative activities spaces for creation and co-creation. Resources and instruments for creative and innovative activities. Online resources and spaces for creation and collaboration.</li> </ul>

## 6. Specific competencies acquired

<b>Professional competencies</b>	
<b>Transversal competencies</b>	<p>CT1 Honorable, responsible, ethical behavior, in the spirit of the law, to ensure the professional reputation</p> <p>CT2 Identifying, describing and conducting processes in the projects management field, undertaking different team roles and clearly and concisely describing own professional results, verbally or in writing</p> <p>CT3 Demonstrating initiative and pro-active behavior for updating professional, economical and organizational culture knowledge</p>

## 7. Objectives of the discipline (outcome of the acquired competencies)

7.1 General objective of the discipline	<ul style="list-style-type: none"> <li>Understanding the specific concepts of innovation.</li> <li>Understanding the specific concepts of innovation management.</li> <li>Learning the methods, techniques and tools needed in innovation processes.</li> <li>The necessary skills in innovation processes, including strategic innovation and digital innovation.</li> <li>Development of managerial and entrepreneurial skills specific to innovation.</li> <li>Leading innovative teams.</li> </ul>
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> <li>Understanding the main trends in the management of innovation and digital innovation, methods and techniques for innovation and digital innovation.</li> <li>Development and implementation of innovation strategies.</li> <li>Development of innovative products and services.</li> <li>Training and application of skills, competences and skills specific to innovation management.</li> </ul>

## 8. Content

8.1 Course	Teaching methods	Remarks
1. Introduction to innovation management. The	Lecture, heuristic	2 hours

importance of innovation and contexts of innovations.	conversation, problematization.	
2. Strategic and technological trends for innovation.	Lecture, heuristic conversation, problematization.	2 hours
3. Specific technics, methods and instruments for innovation.	Lecture, heuristic conversation, problematization.	2 hours
4. Innovation strategies.	Lecture, heuristic conversation, problematization.	2 hours
5. Typology of innovation (product innovation vs. process innovation; radical innovation vs. incremental innovation; architectural innovation vs. restricted innovation; innovation and the S curve).	Lecture, heuristic conversation, problematization.	2 hours
6. Innovation management in organizations (innovation management dilemmas; dynamic capabilities, uncertainty management; organizational characteristics that facilitate innovation processes; organizational structures for innovation; the relationship between knowledge, innovation and organizational learning).	Lecture, heuristic conversation, problematization.	2 hours
7. Features and dimensions of digitalization. The disruptive effects of digital innovation.	Lecture, heuristic conversation, problematization.	2 hours
8. Innovation economics. Entrepreneurial innovation vs corporate innovation and R&D.	Lecture, heuristic conversation, problematization.	2 hours
9. Disruptive innovation.	Lecture, heuristic conversation, problematization.	2 hours
10. Service innovation. Product innovation.	Lecture, heuristic conversation, problematization.	2 hours
11. Value innovation. Business models innovation.	Lecture, heuristic conversation, problematization.	2 hours
12. Organizational innovation and open innovation (co-innovation).	Lecture, heuristic conversation, problematization.	2 hours
13. Innovation culture, abilities and competences for innovation. Critical and creative thinking. Ethics of innovation and intellectual property.	Lecture, heuristic conversation, problematization.	2 hours
14. Innovation ecosystems and systems of innovation.	Lecture, heuristic conversation, problematization.	2 hours

#### Bibliografie

1. Andersen, M., Pedersen, T. (2022), *Data-Driven Innovation. Why the Data-Driven Model Will Be Key*

- to *Future Success*, Routledge
2. Carayannis, E. (2013), *Encyclopedia of Creativity, Invention, Innovation, and Entrepreneurship*, Springer Reference
  3. Coron, C., Gilbert, P. (2020), *Technological Change*, Wiley
  4. Daim, T., Meissner, D. (2020) *Innovation Management in the Intelligent World*, Springer
  5. Deschamps, J.P. (2014). *Innovation Governance*: John Wiley & Sons
  6. Ende, J. (2021), *Innovation Management*, Macmillan International
  7. Espindola, D., Wright, M. (2021), *The Exponential Era. Strategies to Stay Ahead of the Curve and an Era of Chaotic Changes and Disruptive Forces*, Wiley
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  9. Genenning, S. (2020), *Realizing Digitization – Enabled Innovation*, Springer Gabler
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  12. Joao, L. (2019), *Open Innovation Business Modeling. Gamification and Design Thinking Applications*, Springer
  13. Kennard, M. (2021), *Innovation and Entrepreneurship*, Routledge
  14. Kesavan, P. (2021), *Enablers of Organisational Learning, Knowledge Management, and Innovation*, Springer
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  16. McKelvy, B., Kaminska, R., Salmador, M., Escoffier, N. (2021), *Management in the Age of Digital Business Complexity*, Routledge
  17. Meunier, F. (2020), *Dual Innovation Systems. Concepts, Tools and Methods*, Wiley
  18. Pithan, D. (2022), *Corporate Research Laboratories and the History of Innovation*, Routledge
  19. Rangone, A. (2020), *Managing Corporate Innovation. Determinants, Critical Issues and Success Factors*, Springer
  20. Schilling, M.A. (2020), *Strategic Management of Technological Innovation, Sixth edition*: McGraw-Hill
  21. Shane, S. (2008), *Handbook of Technology and Innovation Management*: Wiley
  22. Sniukas, M. (2020), *Business Model Innovation as a Dynamic Capability*, Springer
  23. Taplin, R., (2014), *Intellectual Property Valuation and Innovation. Towards global harmonisation*, Routledge
  24. Trott, P. (2021), *Innovation Management and New Product Development*, Pearson Education Limited
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  29. Woszczyzna K. (2021), *Management Theory, Innovation and Organisation*, Routledge
  30. Zhou, J., Rouse, E. (2021), *Handbook of Research on Creativity and Innovation*, Edward Elgar Publishing

**9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program**

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### 10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)
10.4 Course	Acquiring the information received during the course. Own reasoning, critical and creative thinking on the topics of the course.	Exam.	80%
	Own reasoning, critical and creative thinking on the topics of the course.	Interventions and debates at the courses.	10%
	Innovation strategy development.	Project.	10%
10.6 Minimum performance standards			
• Minimum grade of 5 for promotion.			

Date

16.05.2022

Signature of course coordinator

Lector univ. dr. Alexandru Roja



Signature of seminar coordinator

Lector univ. dr. Alexandru Roja



Date of approval

24.05.2022

Signature of the head of department

